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**From:** Ichinotsubo, Lene K [lene.ichinotsubo@doh.hawaii.gov]  
**Sent:** 1/12/2018 4:40:03 PM  
**To:** Linder, Steven [Linder.Steven@epa.gov]  
**Subject:** FW: FW: Corrosion Consultation

Steve,

Here is the proposed scope I had presented Lloyd with. I'm looking to keep his task order fairly general based on the way the project is progressing. Lloyd is also going through some of the background documents so that he has a better idea of what he believes the scope should be and his level of effort.

Tetra Tech's contract is a five year contract with annual renewals. The contract "ends" in May 2018, and is expected to renew from there.

The last I heard from Lloyd is that he will get back with me early next week on this. Adding him on to Tetra Tech's contract should not take long.

Lene

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**From:** Ichinotsubo, Lene K  
**Sent:** Thursday, December 28, 2017 10:02 AM  
**To:** 'Lloyd Hihara' <lloyd.hihara@startmail.com>  
**Cc:** Kwan, Roxanne S <roxanne.kwan@doh.hawaii.gov>  
**Subject:** Corrosion Consultation

Hi Lloyd,

Regarding contracting with you through Department of Health (DOH) and our contractor, here is where I am:

DOH, Hazard Evaluation and Emergency Response (HEER) Office has an existing contract with Tetra Tech to assist the DOH with technical evaluations. We may be able to add another task order to their contract for your services. I am already working with the manager of the HEER Office on other aspects of the project, and we are already preparing a task order for consulting services related to groundwater. Thus, we believe we can do the same for corrosion. I have asked Tetra Tech to look into insurance coverage for you. Being that you will be providing professional opinion, they believe they can cover, but will confirm and let me know.

Assuming that insurance coverage will be provided, we will need to develop your scope of work, associated cost estimate, and work schedule.

Here is some background information on the project:

The work that the Navy is doing is based on an Administrative Order on Consent (AOC) signed by the Navy, EPA and DOH. The agreement is found here: [http://health.hawaii.gov/shwb/files/2015/09/Red-Hill-AOC\\_Final\\_29SEP151.pdf](http://health.hawaii.gov/shwb/files/2015/09/Red-Hill-AOC_Final_29SEP151.pdf), and the scope of work is found here: [http://health.hawaii.gov/shwb/files/2015/09/Red-Hill-SOW\\_11SEP15.pdf](http://health.hawaii.gov/shwb/files/2015/09/Red-Hill-SOW_11SEP15.pdf). The scope of work is generally broken down into 8 sections: 1—Overall Project Management; 2—Tank Inspection, Repair and Maintenance; 3—Tank Upgrade Analysis; 4—Leak Detection/Tank Tightness Testing; 5—Corrosion and Metal Fatigue Practices; 6—Investigation and Remediation of Releases; 7—Groundwater Protection and Evaluation; and 8—Risk and Vulnerability Assessment.

I believe your work will be related to Tank Infrastructure Improvements (Sections 2, 3, 4, 5 and 8). As for status of these Sections: Section 2 is generally completed (reports may be found: <https://www.epa.gov/red-hill/tank-inspection-repair-and-maintenance-red-hill#documents>). Section 3 has so far resulted in the evaluation of six tank upgrade alternatives (section 3.3). The latest report may be found: <https://www.epa.gov/red-hill/tank-upgrade-alternatives-red-hill#documents>. Section 4 is currently at the stage where they will be blind testing three leak detection systems (Section 4.6). The latest report may be found: <https://www.epa.gov/red-hill/release-detection-red-hill#file-419325>. Section 5 status is at the submission of their scope of work to perform destructive testing and the regulatory agencies' conditional approval of scope. Status and latest documents may be found: <https://www.epa.gov/red-hill/corrosion-and-metal-fatigue-practices-red-hill#documents>. Section 8 has completed the scope of work. Latest documents may be found: <https://www.epa.gov/red-hill/risk-and-vulnerability-assessment-red-hill>

#### Scope of Work:

I foresee your scope of work to be something along these lines:

1. Reviewing available information on the project, including but not limited to the AOC Scope of Work, and submitted documents associated with Sections 2, 5 and 3.
2. Participate in meetings/discussions associated with Section 5, and related Non-Destructive Testing and Destructive Testing, and possibly Section 3 as it may involve discussion on corrosion. Meetings may be with the Navy and other subject matter experts, EPA, DOH, and/or PEMY.
3. Conduct related field inspections during related testing, if appropriate, and/or inspect collected samples.
4. Provide comments and recommendations based on Navy's presentations, meetings, documents, observations, testing results, and other available information.
5. Attend public meetings to help explain corrosion related work to the public, if necessary.

Being that we are not certain as to the specific dates and times of future meetings or testing, we expect this work to be on an hourly basis, with a not to exceed. Approval for number of hours spent on each task item would likely be in place to control costs and expectations. For the purpose of a cost estimate, we can assume two field

inspections, five four-hour meetings, and four new documents for the upcoming calendar year. The report for the results of the destructive testing is expected in 2019.

If after you briefly look over some of the background documents, we can discuss in further detail what you believe your scope of work should be to help the DOH achieve our goals, which is to ensure that the Navy proceeds with the best practicable alternative available, both in potential future upgrades of the tanks and periodic testing procedures to evaluate the on-going integrity of the tanks.

Call me when you are ready to discuss. We can meet to go over details. At that time, I may also bring in Tetra Tech and DOH-HEER. If you prefer, we can still go through PEMY.

Thanks,

lene

Lene Ichinotsubo

Solid and Hazardous Waste Branch 7--

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